

PATENT COOPERATION TREATY

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From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

12/5

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/035214

International filing date (day/month/year)
25.10.2004

Priority date (day/month/year)
29.10.2003

International Patent Classification (IPC) or both national classification and IPC
H01R43/20, H01R12/20

Applicant
MOLEX INCORPORATED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Salojärvi, K

Telephone No. +31 70 340-4036



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/035214

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/035214

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, Inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|---------|
| Novelty (N) | Yes: Claims | 1-17,19 |
| | No: Claims | 18 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-19 |
| Industrial applicability (IA) | Yes: Claims | 1-19 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1 Reference is made to the following documents:

D1: EP-A-1 341 270
D2: US-B1-6 540 551
D3: US-A-5 453 016
D4: EP-A-1 073 165

2 INDEPENDENT CLAIMS 1,5,11,13 AND 18

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 18 is not new in the sense of Article 33(2) PCT.

2.1.1 The document D1 discloses (the references in parentheses applying to this document):

A system for mounting an electrical connector on a circuit board, comprising:

- a dielectric housing (g);
- a plurality of first terminals (a first group of pins "j", see Fig. 2) mounted on the housing and having circuit board press-fit portions (a first group of tails "l", see Fig. 4) projecting therefrom;
- a plurality of second terminals (a second group of pins "j", see Fig. 2) mounted on the housing and having circuit board press-fit portions (a second group of tails "l", see Fig. 4) projecting therefrom;
- a press-fitting block (51/52) engageable with the housing and locked to the first terminals for press-fitting the first terminals into appropriate holes in the circuit board (see Claim 8);
- said press-fit portions of the second terminals being exposed exteriorly of the housing and the press-fitting block (see Fig. 4; the press-fitting block 51 does not cover the second group of terminals "j" and the press-fitting

- block 52 does not cover the first group of terminals "j"); and
- a jig (75, see Fig. 5) for press-fitting the second terminals into appropriate holes in the circuit board.

2.1.2 Consequently, document D1 discloses all the features of claim 18 and the requirements of Article 33(2) PCT regarding novelty are not fulfilled.

2.2 As regards independent claims 1 and 11, they comprise all the features of claim 18 and should have been appropriately formulated as claims dependent on the latter (Rule 6.4 PCT).

2.3 The scope of independent claims 5 and 13 is, because of the wording "in combination with...", unclear (Article 6 PCT).

3 DEPENDENT CLAIMS 2-4,6-10,12,14-17 AND 19

Dependent claims 2-4,6-10,12,14-17 and 19 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see documents D1-D4 cited in the search report.

4 INDUSTRIAL APPLICABILITY

The invention relates to an electrical connector for mounting on a circuit board. Consequently, it is obvious that the invention has industrial applicability.